

Centaur 50th Anniversary Engineering Design Challenge "Pushing the Limits"

Written Component Guidelines

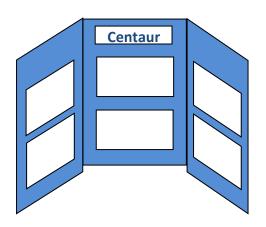
Students will be evaluated on a written component along with the performance of their Centaur vehicle. Each group is required to create a tri-fold poster board including aspects of the Engineering Design Process along with a 500-word (maximum) essay about the significance of the Centaur rocket.

Tri-Fold Poster

The Tri-Fold poster board is used to share the team's process in creating, constructing and testing their engineering design. The poster should be clean and organized, and include the following information

- An appropriate title
- A section highlighting the work the team did to complete each step of the Engineering Design Process
- Visual aids, including photos or illustrations showing the development of the design, charts and/or tables presenting test data, and lessons learned from the entire design process.
- Centaur Essay

Students will designate representatives of their team to present their poster boards to evaluators. Presenters should practice good communication skills including speaking clearly and confidently, maintaining eye contact, and knowing their project thoroughly.



Centaur Essay

Each team will be required to compose a 500-word essay, outlining the significance of NASA's Centaur upper-stage rocket which should be included in the Tri-Fold poster. This essay should be typed in 12-point font with one-inch margins. It should have a strong introduction and conclusion, and be free of spelling or grammatical errors. It should concisely answer all of the following questions:

- 1. What is the historical significance of Centaur?
- 2. What made the Centaur such a unique design?



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- 3. Highlight one successful NASA mission that was accomplished with the assistance of a Centaur rocket. What were the mission's goals?
- 4. How does Centaur's design still impact us on Earth today?